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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:	Xu et al.	Confirmation No.:	5438
Serial No.:	09/763,334	Art Unit:	1632
Filed:	August 6, 2001	Examiner:	Chen, Shin Lin
For:	TREATMENT AND PREVENTION OF CANCER AND PITUITARY DISORDERS WITH LATS PROTEINS, DERIVATIVES AND FRAGMENTS, AND LATS KNOCK-OUT ANIMAL MODELS	Attorney Docket No:	6523-020

OFFICIAL

RESPONSE TO RESTRICTION REQUIREMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the outstanding Office Action dated January 24, 2003, please consider the following election made below. Also included herewith are: (1) a Petition for Extension of Time for a period of five months from February 24, 2003 up to and including July 24, 2003, along with authorization to charge the appropriate extension fee; (2) an Information Disclosure Statement and a List of References cited with copies of references AA to EQ.

RESTRICTION REQUIREMENT

The Examiner has required a restriction under 35 U.S.C. § 121 and 371 to one of the following inventions:

Group I: Claims 1-5, drawn to a recombinant non-human animal with inactivated lats gene;

Group II. Claims 6-12, 14-22 and 37, drawn to a method for screening a compound that is a protein for activity in treating or preventing cancer comprising administering the compound to the recombinant non-human animal;

Group III. Claims 6-12, 14-22 and 37, drawn to a method for screening a compound that is a protein for activity in treating or preventing cancer comprising administering the compound to the recombinant non-human animal;

Group IV. Claims 6-23 and 37, drawn to a method for screening a compound that is a nucleic acid for activity in treating or preventing cancer comprising recombinantly expressing the compound in the recombinant non-human animal;

Group V. Claims 24-35 and 37, drawn to a method for screening a compound that is a protein for activity in treating or preventing a disease or disorder associated with pituitary dysfunction, such as LH hypogonadotropic hypogonadism, comprising administering the compound to a lats knockout animal;

Group VI. Claims 24-35 and 37, drawn to a method for screening a compound that is an antibody for activity in treating or preventing a disease or disorder associated with pituitary dysfunction, such as LH hypogonadotropic hypogonadism, comprising administering the compound to a lats knockout animal;

Group VII. Claims 24-37, drawn to a method for screening a compound that is a nucleic acid for activity in treating or preventing a disease or disorder associated with pituitary dysfunction, such as LH hypogonadotropic hypogonadism, comprising recombinantly expressing the compound in the recombinant non-human animal;

Group VIII. Claims 38-59, drawn to a method for treating a cancer by administering to a subject a protein, such as lats protein, that promote lats function;

Group IX. Claims 60-66, drawn to a method for treating a cancer by administering to a subject a nucleic acid encoding a lats protein;

Group X. Claims 67-81, 89-92 and 100, drawn to a purified complex of lats and cdc2 protein, a kit comprising a lats protein, a lats derivatives, a lats analog, or a complex of a lats and a cdc2 protein, and a pharmaceutical composition comprising the complex of lats and cdc2 protein;

Group XI. Claims 82, 83, 93 and 100, drawn to an antibody that binds to the complex of lats and cdc2 protein, a kit comprising said antibody, and a pharmaceutical composition comprising said antibody;

Group XII. Claims 67, 84-88, 94-98 and 100, drawn to an isolated nucleic acid comprising a nucleotide sequence encoding a lats protein and a nucleotide sequence

encoding a cdc2 protein, a host cell comprising said nucleic acid, a pharmaceutical composition comprising said nucleic acid, a method of producing protein by using said host cell, and a kit comprising said nucleic acid;

Group XIII. Claim 99, drawn to a method of diagnosing or screening for the presence of a predisposition for developing a disease or disorder characterized by an aberrant level of a complex of a lats protein and a cdc2 protein in a subject by measuring the protein level of said complex;

Group XIV. Claim 99, drawn to a method of diagnosing or screening for the presence of a predisposition for developing a disease or disorder characterized by an aberrant level of a complex of a lats protein and a cdc2 protein in a subject by measuring the level of RNA encoding the lats and cdc2 proteins;

Group XV. Claim 99, drawn to a method of diagnosing or screening for the presence of a predisposition for developing a disease or disorder characterized by an aberrant level of a complex of a lats protein and a cdc2 protein in a subject by measuring functional activity of said complex;

Group XVI. Claims 101 and 102, drawn to a method for modulating the activity of cdc2 comprising administering a molecule that promotes lats function;

Group XVII. Claims 101 and 103, drawn to method for modulating the activity of cdc2 comprising administering a molecule that inhibits or antagonizes lats function; and

Group XVIII. Claims 104 and 105, drawn to a method for treating or preventing a disease or disorder associated with an aberrantly high level of cdc2 in a subject by using a lats protein, a lats derivative or analog that promotes lats function;

Group XIX. Claims 104 and 105, drawn to a method for treating or preventing a disease or disorder associated with an aberrantly high level of cdc2 in a subject by using a nucleic acid encoding a lats protein, a lats derivative or analog that promotes lats function;

Group XX. Claims 104 and 105, drawn to a method for treating or preventing a disease or disorder associated with an aberrantly high level of cdc2 in a subject by using a lats agonist that is an organic compound other than protein and nucleic acid;

Group XXI. Claims 106 and 107, drawn to a method for treating or preventing a disease or disorder associated with an aberrantly low level of cdc2 in a subject by using a lats derivative or analog that inhibits or antogonizes lats function;

Group XXII. Claims 106 and 107, drawn to a method for treating or preventing a disease or disorder associated with an aberrantly low level of cdc2 in a subject by using an anti-lats antibody;

Group XXIII. Claims 106 and 107, drawn to a method for treating or preventing a disease or disorder associated with an aberrantly low level of cdc2 in a subject by using a lats antisense nucleic acid;

Group XXIV. Claims 108 and 109, drawn to a method for screening a molecule for efficacy in treating or preventing a cancer by contacting the cancer cells with said molecule and comparing the proliferation or survival of the contacted cells;

Group XXV. Claim 110, drawn to a method for screening a molecule for activity to modulate cdc2 levels or activity comprising contacting cells with said molecule and comparing the level of cdc2 protein in cells;

Group XXVI. Claim 110, drawn to a method for screening a molecule for activity to modulate cdc2 levels or activity comprising contacting cells with said molecule and comparing the level of cdc2 mRNA in cells;

Group XXVII. Claim 110, drawn to a method for screening a molecule for activity to modulate cdc2 levels or activity comprising contacting cells with said molecule and comparing the activity of cdc2 protein in cells;

Group XXVIII. Claims 111 and 112, drawn to a method for screening a molecule for activity to inhibit the formation of a complex of lats and cdc2 protein comprising measuring the levels of said complex formed from lats and cdc2 proteins with or without the presence of said molecule; and

Group XXIX. Claims 111 and 113, drawn to a method for screening a molecule for activity to promote the formation of a complex of lats and cdc2 protein comprising measuring the levels of said complex formed from lats and cdc2 proteins with or without the presence of said molecule.

The Examiner contends that the inventions of the above Groups are distinct.

In response, Applicants elect the subject matter of Group X, Claims 67-81, 89-92, and 100, for prosecution in this application. Applicants fully reserve all rights to prosecute the subject matter of any non-elected group in one or more subsequent related applications. Applicants also retain the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

No fee is believed due for filing the present response. If any fees are owed in connection with the above-identified application, please charge any fees to Pennie &

Edmonds LLP Deposit Account No. 16-1150. A copy of this sheet is enclosed for accounting purposes.

CONCLUSION

Applicants respectfully request that the foregoing amendments and remarks be entered and made of record in the file history of the application.

Respectfully submitted,

Date: July 23, 2003

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